

QUICK REFERENCE GUIDE FOR STENTING OF AO COARCTATION

PURPOSE: To correct a congenital narrowing in the aorta that causes reduced blood flow to the lower extremities.

EXTRA STAFF NEEDED:

- Anaesthesia pre-booked, for general anaesthetic administration during inflation of valvuloplasty balloon and deployment of stent. Anaesthetist will monitor and given medication/sedation during procedure

EQUIPMENT REQUIRED:

- Left heart pack, cath lab bundle, PTCA bag, sterile basin
- (2) 3 cc syringes, 1 sterile cup and kocher, 3 sterile bonnets (sizes 30,36,52)
- 1 radial sheath (usually 5Fr)
- (1) 10 Fr femoral sheath
- (2) Perclose sutures
- 0.35 j-wires, 0.35 extra-stiff exchange length wires (MDs may also ask for glide wire if they have difficulty crossing the coarctation), 0.35 straight wires.
- 1 Covered Coarctation Stent (size dependent on MD)
- 1 Mullins Introducer Sheath set (size 10/12/14 depends on MD)
- (1) 12 Fr and 14 Fr X 12cm FAST CATH sheaths
- 8 Fr Gensini catheter
- (1) Mullins Introducer Sheath Set (usually 12 or 14Fr-85cm long)
- (1) 5Fr Marker pigtail catheter
- (1) 60cc syringe containing mix of flush and dye (for hand injections/hand inflations, **please ask MD how he wants the flush and dye mixed**)
- Femoral clamp on hand is recommended as it may be needed to achieve hemostasis when Mullins sheath is removed

POSSIBLE MEDICATIONS:

- Local Zylocaine 2% and Bupivacaine 0.5%
- Versed (generally 1-2mg) Fentanyl (generally (25-50mcg) as per MD)
- Heparin bolus as per MD (after cannulation)
- Ancef 1 Gm IV or (Vancomycin 1 Gm IV if patient has allergy)

PROCEDURE FLOW IN BRIEF:

- Patient arrives in lab, monitoring of vital signs commences
- Sedation is given by anaesthetist
- Zero P1 and P2
- Patient is prepared for both right radial arterial and either right or left arterial cannulations
- Local anaesthetic is given by MD
- Cannulation of right radial artery (5Fr sheath is usually used)
- Cannulation of femoral artery (usually upsize to 10 Fr sheath), and Perclose sutures x 2 are preset. Heparin bolus given post-cannulations by AA
- 5 Fr Marker pigtail catheter is given and advanced to the ascending aorta via right radial arterial access
- Name that channel aAO

- 8Fr Gensini catheter is given and advanced to the descending aorta via femoral arterial access
- Name that channel dAO
- Simultaneous pressures of ascending and descending aorta are measured, gradient
- Extra stiff wire is advanced via the pigtail and pigtail is advanced across coarctation to descending aorta, wire is removed and AO angiogram is performed.
- MD measures coarctation. Covered Coarctation stent and balloon are chosen and prepped depending on measurements taken.
- Mullins Introducer Sheath set is given and prepped by MD
- Extra stiff exchange length wire is given and advanced to across coarctation and Gensini catheter is removed.
- 10 Fr sheath is upsized to either 12 or 14 Fr sheath (check flo)
- Stent and balloon are advanced via long 12fr or 14fr Mullins sheath and pigtail catheter is pulled back into ascending aorta
- Aortic angios are performed as MDs position stent to confirm
- Once positioning is verified stent is deployed with hand inflations. (Anaesthetist will given sedation during deployment)
- Aortic angios are done to check placement of the stent.
- Balloon is removed
- Will need to set new condition “post-deployment” as MDs will want re-sampling of simultaneous ascending and descending aortic pressures
- May perform aortic angios in multiple views
- Pigtail catheter and Mullins sheath are removed and Perclose sutures are tied. (Femoral clamp or manual pressure to femoral sited to achieve hemostasis as needed)
- Radial sheath is removed and clamp is applied